



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/853,604	05/09/97	PRINGLE	J V11P04480US0

000881  
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IMS1/0826

EXAMINER

MANOHARAN, V

ART UNIT

PAPER NUMBER

1764

3

DATE MAILED: 08/26/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/853,604**

Applicant(s)  
**JOE ALLEN PRINGLE**

Examiner  
**VIRGINIA MANOHARAN**

Group Art Unit  
**1764**



☒ Responsive to communication(s) filed on May 9, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-22 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-22 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1764

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

The abstract of the disclosure is objected to because of the inclusion of legal phraseology often used in patent claims. For example "comprising" recited in line 5. Correction is required. See MPEP. § 608.01(b).

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether the recited "a tire" in claim 7, last line is the same or different from the initially recited "a preheated whole waste tire received in the irradiation chamber from the preheat chamber..." as recited in claim 1, the claim from which it depend (underlinings supplied).

See also claims 13-16.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apffel '189 or Holland '141 in view of Balbaa et al.

Art Unit: 1764

Either Apffel '189 or Holland '141 discloses an apparatus for providing destructive distillation (pyrolysis) of waste tire substantially as claimed. See the abstracts of Apffel and Holland. The apparatus of Apffel or Holland differs from the claimed invention in that claim 1, for example, recites that an irradiation chamber is thermally coupled to said preheat chamber such that heat generated in said irradiation chamber produces heat in said preheat chamber and further recites a microwave energy supply means for supplying microwave energy to said irradiation chamber to provide destructive distillation of a preheated whole waste tire received in said irradiation chamber.

Apffel discloses means for preheating with superheat steam and Holland provides means for preheating with a hot gas stream. However, it would have been obvious to one of ordinary skill in the art to substitute for the means of preheating of Apffel or Holland with the means for permitting convectional and radiative heat transfer from one chamber to another in the manner as taught by Balbaa et al as such as conventionally done in the art. See e.g., col. 2, lines 26-54 of the Balbaa et al reference.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- (a) Japan '874 discloses an apparatus wherein the preheating chamber is located above another chamber.
- (b) Flanijan discloses a process and apparatus for the destructive distillation of used rubber tires.

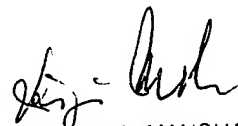
Art Unit: 1764

- (c) Hanson discloses an apparatus wherein the heat from the magnetron tubes supplying microwave energy into the oven is routed back to a preheat region.
- (d) Schippers discloses a process and apparatus wherein organic material is preheated and then subjected in an irradiation device.
- (e) JP '678 discloses ~~a~~ a waste tires apparatus divided into three pyrolysis chambers.
- (f) Grannen et al and Wallace both disclose the microwave pyrolysis of waste.
- (g) Parker, Sr. discloses an apparatus for pyrolysis of tires and wastes.
- (h) Arimatsu discloses an apparatus including a preheating chamber heated by a high frequency wave irradiation.

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1764.

V. Manoharan/mm

August 19, 1998

  
VIRGINIA MANOHARAN  
PRIMARY EXAMINER  
ART UNIT 138/1764  
8/28/98